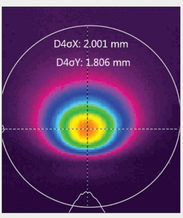
Wednesday, July 12, 2017

PHOTONICS spectra

Monthly newsletter from the editors of Photonics Spectra, with features, popular topics, new products, and what's coming in the next issue.

Laser Beam Diagnostics Is a Critical Step in University Research

The scientific endeavors of our university systems are a vital part of the industrial R&D process that produces many of today's leading-edge designs and manufacturing processes. The demand to accurately measure these concentrated light forms is endless and limitless. So it is up to the researcher to understand the value of particular lasers that will be considered, which wavelengths are best for the absorption of the material or gasses involved, how much power from the laser source is needed to perform the activity required, and the size, shape and uniformity of the laser beam itself.



Read Article

Chalcogenide Glass Molding Advances Precision IR Optics

Today, infrared optics are mainly used in relatively high-priced technical devices. Cost-effective infrared systems could open up many new markets, especially in the field of consumer products where thermal imaging cameras might one day be integrated into commercially available smartphones and provide users with information about energy losses in their homes

Read Article

Semiconductor Lasers Power Up

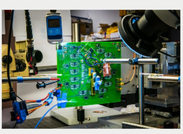
Improvements to semiconductor lasers promise big changes, from increases in power to expanded wavelengths. Other innovations could mean faster data rates for a bandwidth-hungry world. Researchers are investigating semiconductor lasers that can be built to output any desired wavelength, enabling new uses. For some applications, what's important is not just increasing the power that a semiconductor laser can deliver. Instead the key is achieving more intensity per unit area.

Read Article

In Case You Missed It

Ultrathin Camera Creates Images Without Lenses

A novel camera uses an ultrathin optical phased array (OPA) in place of lenses to enable a thin, light, flexible design. The OPA manipulates light through a large array of light receivers. Each receiver can add a tightly controlled phase shift to the light it receives, enabling the camera to selectively look in different directions and focus on different things.



Read Article

Nanoscale Sensor Provides Clear Optical Fingerprint for Identifying Pollutants

A sensor made with ultrathin nanomaterials could improve environmental sensing by providing an unambiguous optical fingerprint for the detection of molecules.

Read Article

Nanoparticle Crystal Used to Control Light

A complex clathrate colloidal crystal has been created by connecting nanoparticles using DNA. One potential application for the novel crystal structures is the control of light.

Read Article

Featured Products

Micro Injection Molding

Accumold

Accumold® is a high-tech manufacturer of precision micro, small and lead frame injection molded plastic components. Utilizing processes developed from Accumold's Micro-Mold® technology, the company designs, builds and produces unique molds and parts.

Visit Website | Request Info

29-Megapixel Imaging Colorimeter

Radiant Vision Systems, Test & Measurement

Evaluate the accuracy of light and color in displays, illuminated components, and light sources. Radiant Vision Systems ProMetric® I Imaging Colorimeters are the fastest, most accurate light and color measurement devices for R&D and production applications.

Visit Website | Request Info

Successful Advanced Technology Commercialization for Everyone!

Photonics Media

A new, 12-lecture course from successful scientist-turned-businessman David Krohn will show you how to identify market opportunities and develop a roadmap for successful commercialization. Commercialization of Innovative Technology through Entrepreneurship – CITE – demonstrates how to move advanced technology into successful commercial products.

Visit Website | Request Info

MIDORI™ ULB-35i Fiber-Optic LED Light Source

USHIO America Inc.

The Midori™ ULB-35i LED light source series combines state-of-the- art, solid-state illumination technology with Ushio's distinctive optical design to create a compact and lightweight fiber-optic lightbox with very high output efficacy.

Visit Website | Request Info

Coming in August...

Features

Organic Lasers; Secure Optical Communications; Nonlinear Optics; Hyperspectral Imaging: Spectroscopy

Issue Bonus

The EDU Issue: Photonics for the Next Generation

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazine *Photonics Spectra*. Please submit an informal 100-word abstract to Managing Editor Mike Wheeler at mike.wheeler@photonics.com or use our online submission form www.photonics.com/submitfeature.aspx.

About *Photonics Spectra*

Since 1967, *Photonics Spectra* magazine has defined the science and industry of photonics, providing both technical and practical information for every aspect of the global industry and promoting an international dialogue among the engineers, scientists and end users who develop, commercialize and buy photonics products.

Stay current with a **FREE subscription** to the digital or print edition.

View Digital Edition | Subscribe Free

Questions: info@photonics.com